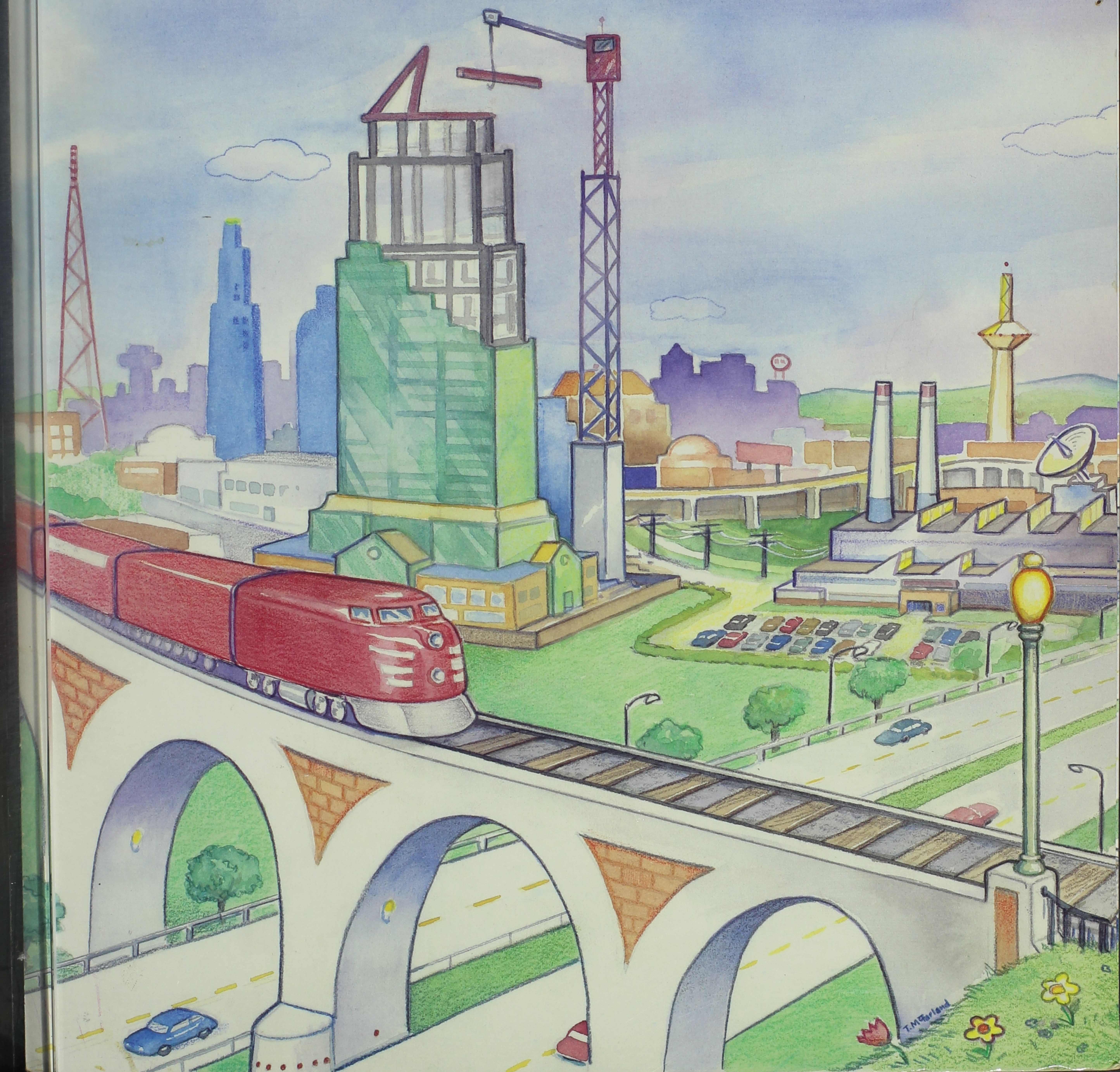


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# Not All Engineers Drive Trains

Text by College of Engineering, Iowa State University

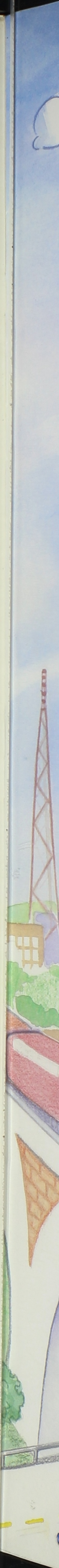
Illustrations by Tom McFarland





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# Not All Engineers Drive Trains

Text by College of Engineering, Iowa State University  
Illustrations by Tom McFarland



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T. McFarland



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Iowa State University's College of Engineering would like to thank all the people who helped put this book together, including those at the university and at Rockwell International. We would also like to give a special thanks to Dawn Vetter, Reading Recovery teacher in the Des Moines Independent Schools who provided the initial concept and rough drafts; Maureen Stone for preparation of the Resource Manual; and Amy Kuhlert for compilation of the list of Additional Resources.

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**IOWA STATE UNIVERSITY**  
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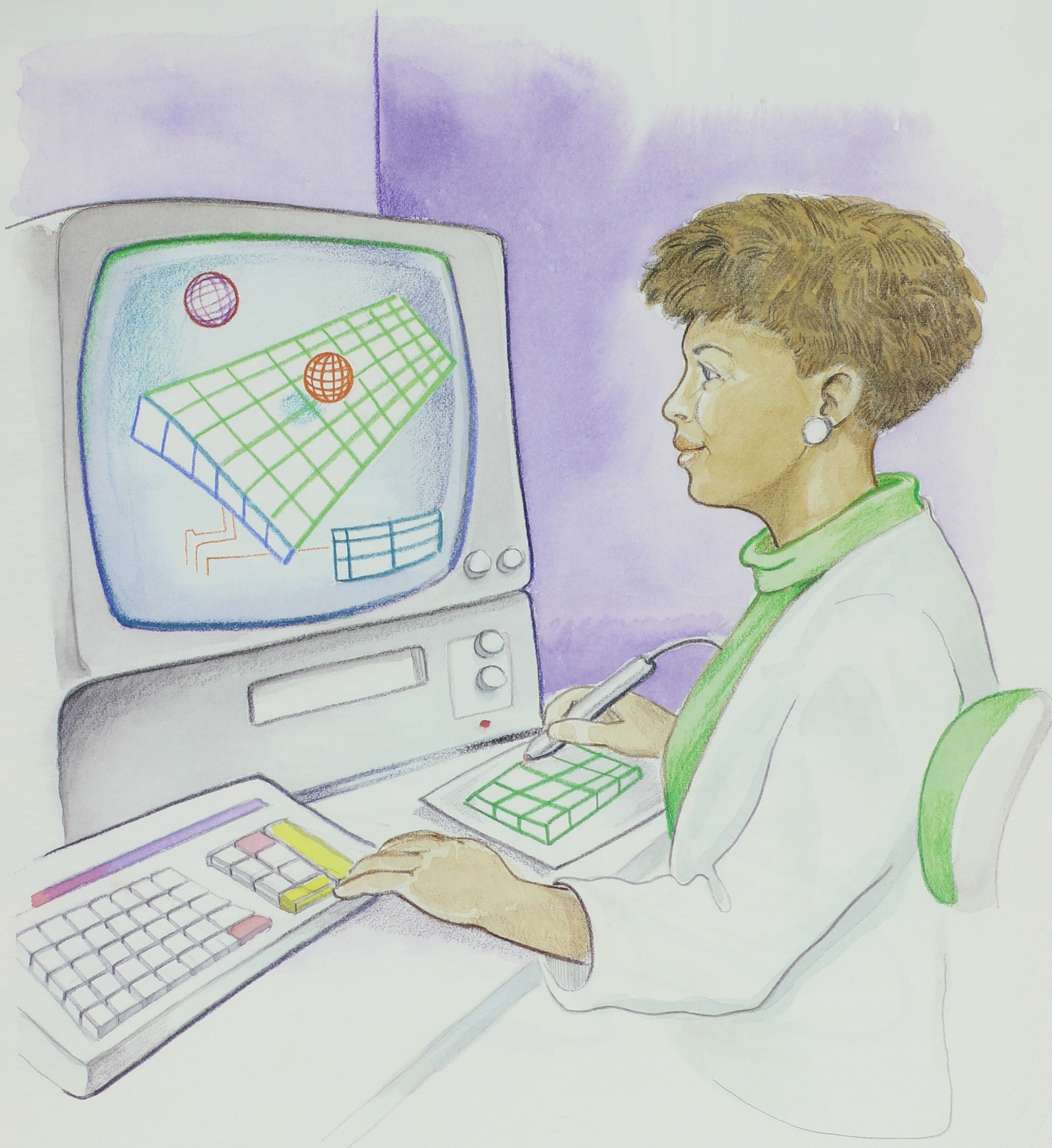
Davey DeWitt is an engineer.  
He drives a train on the tracks.  
His train carries people,  
machines and grain. But . . .





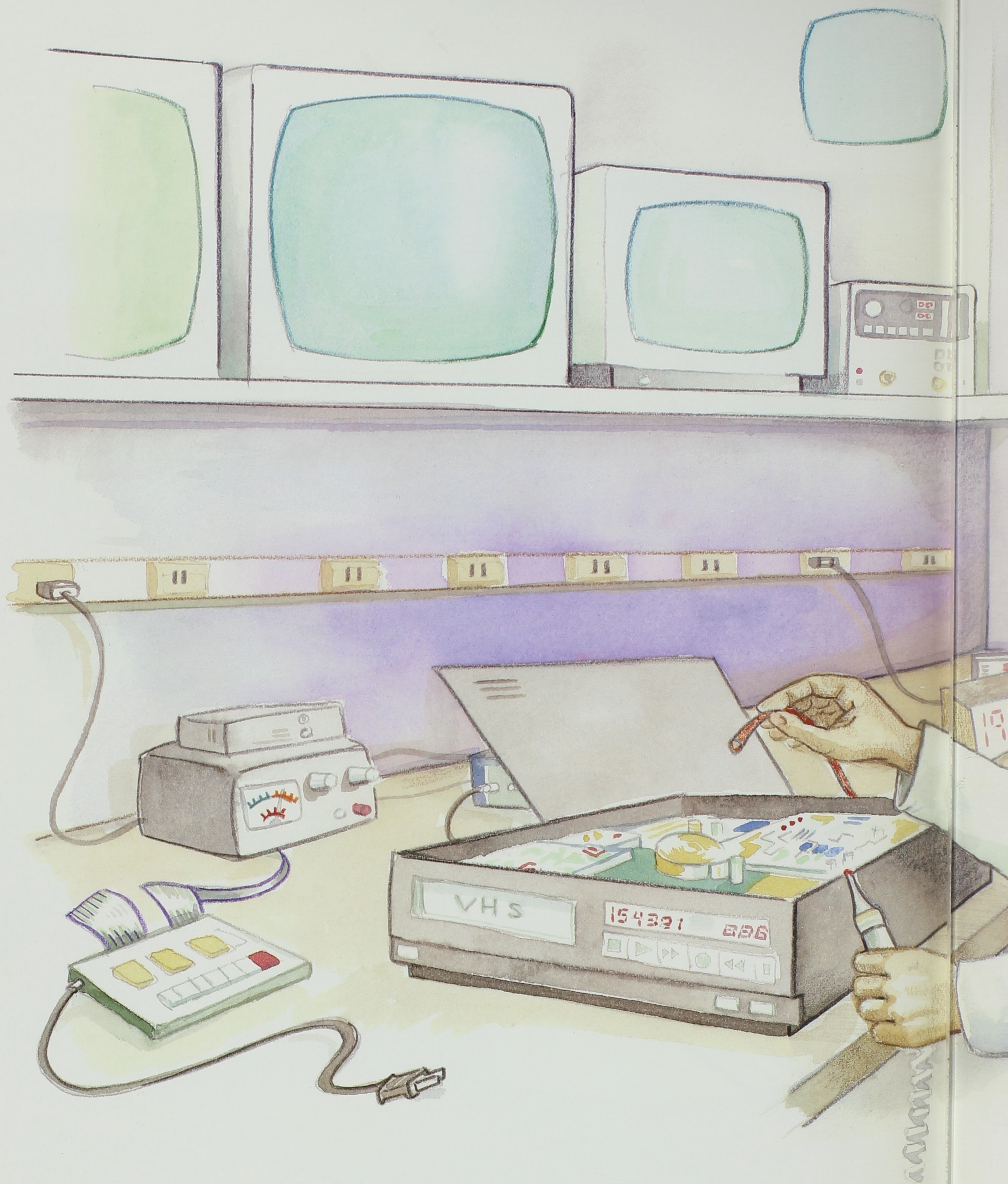
... not all engineers drive trains.





Sheena O'Neil is an engineer.  
She makes electric things work.





Everyday, she thinks of ways  
to make things we plug in.  
She designs the parts that go  
inside of phones and televisions.





Sheena O'Neil has a career  
as an electrical engineer. So . . .





... not all engineers drive trains.





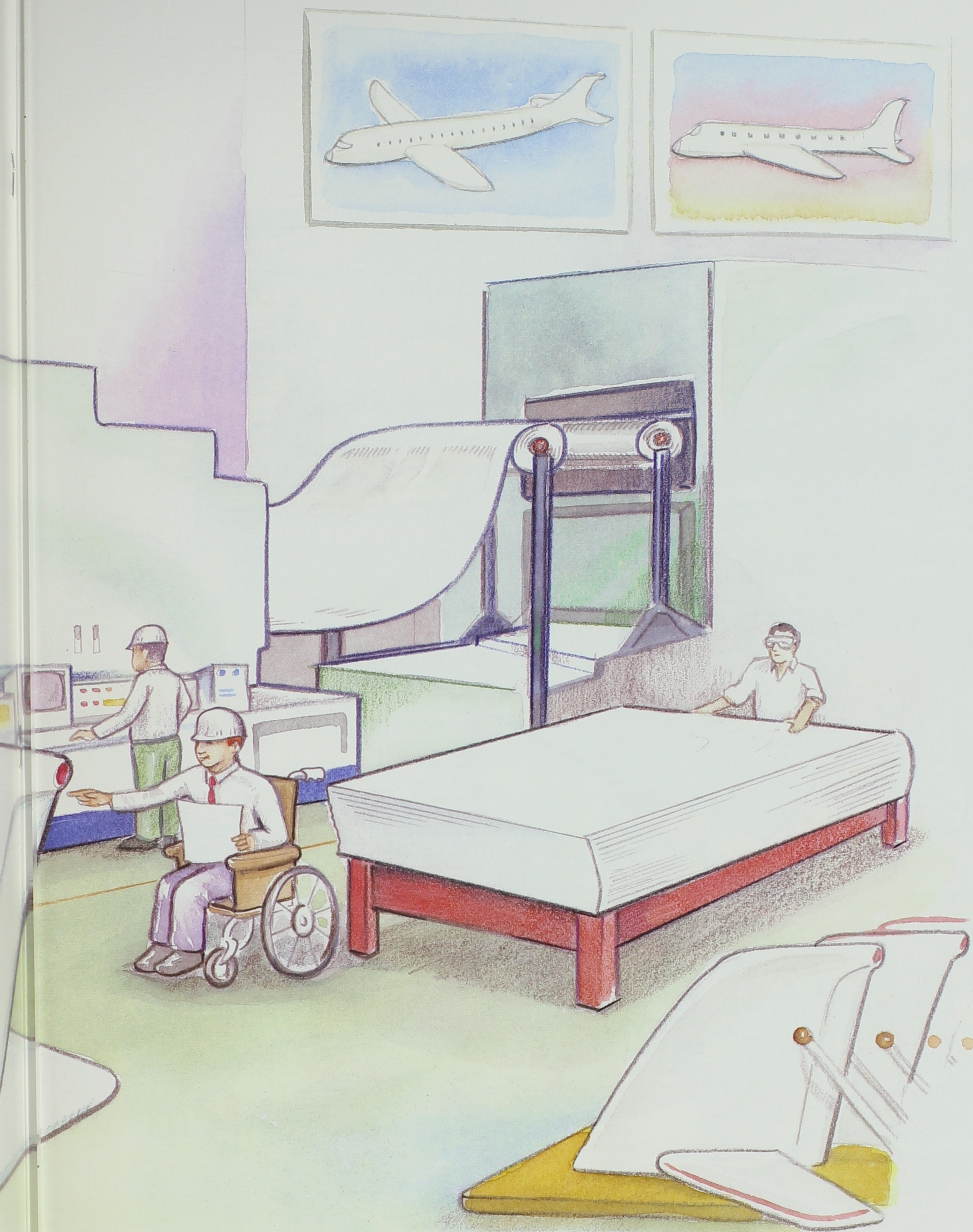
Reggie Reid is an engineer.  
He helps the big machines work.





Everyday, he thinks of ways  
to cut and bend hard metal.  
He designs machines that make  
airplanes and space shuttles.





Reggie Reid has a career  
as a mechanical engineer. So . . .





... not all engineers drive trains.





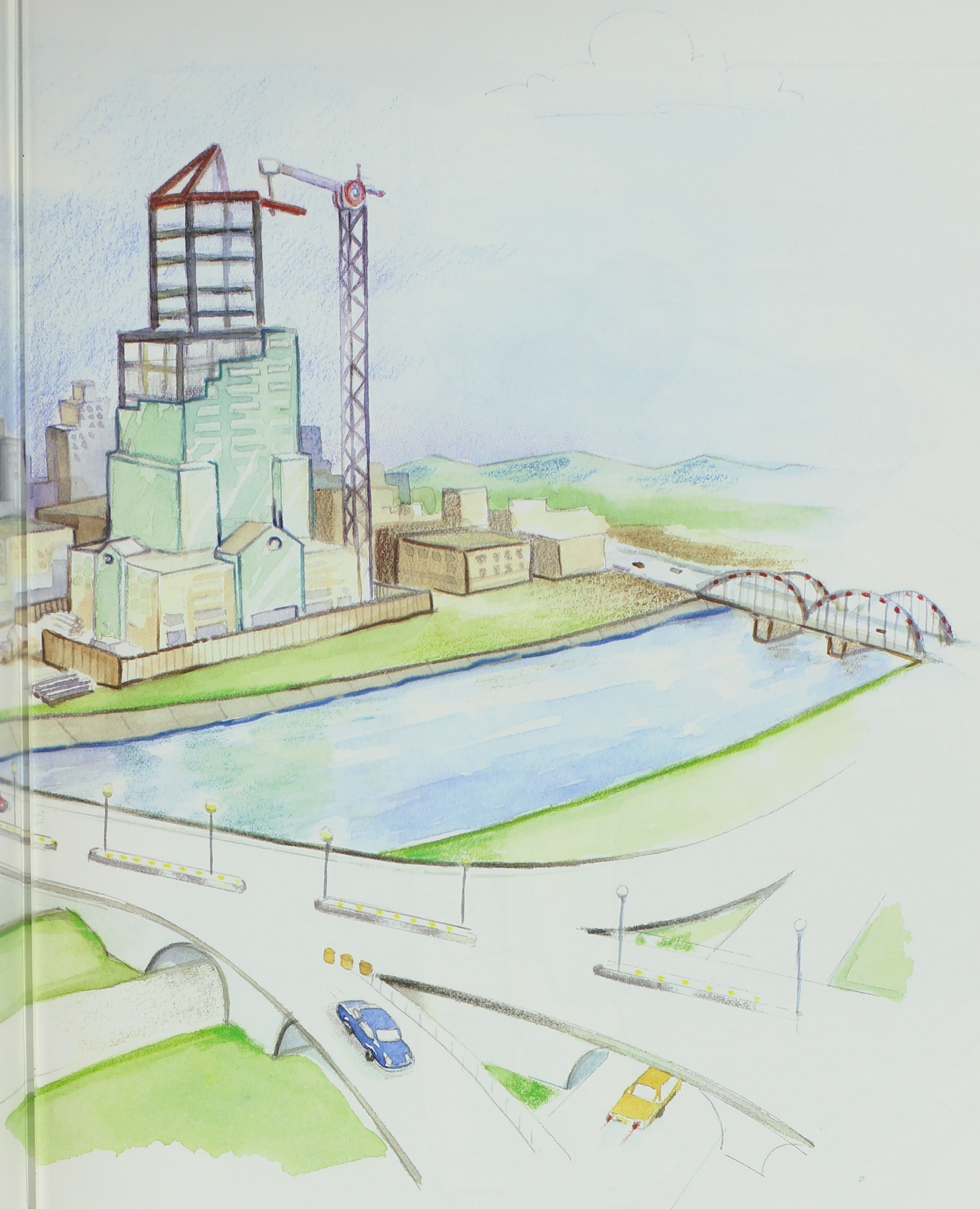
José Perez is an engineer.  
He plans buildings and roads.





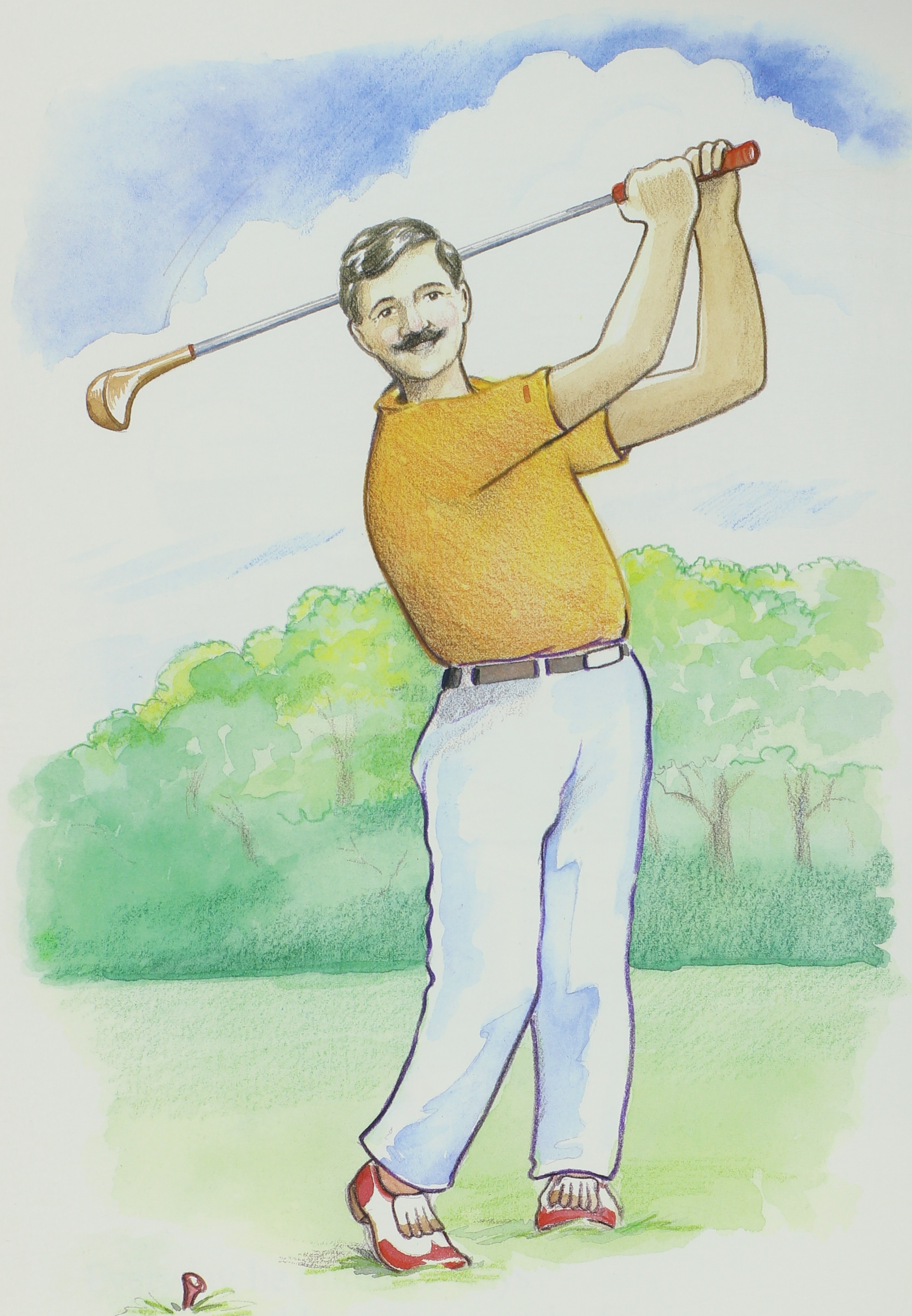
Everyday, he thinks of ways  
to make buildings strong and safe.  
He also designs our roads just right  
to go from place to place.





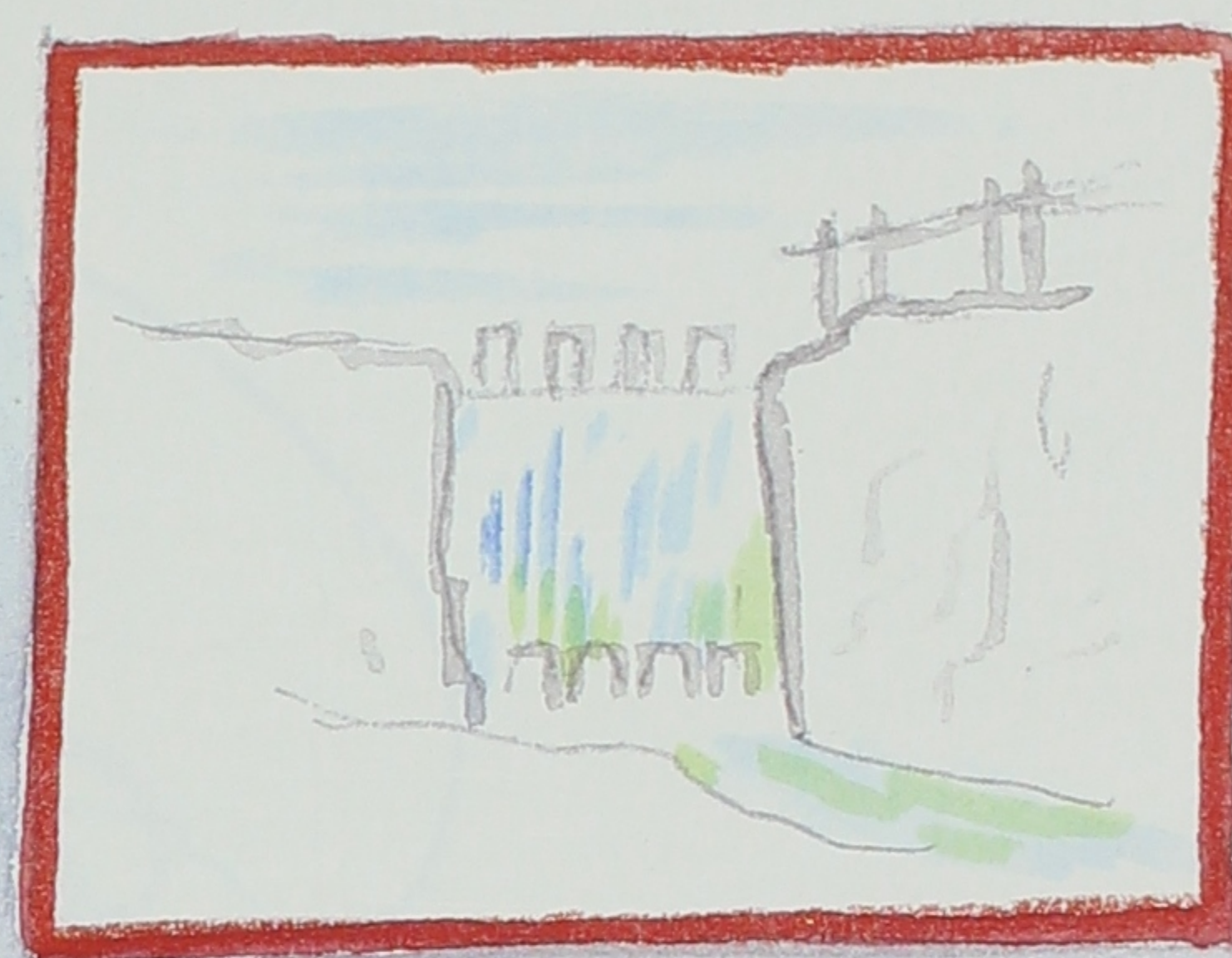
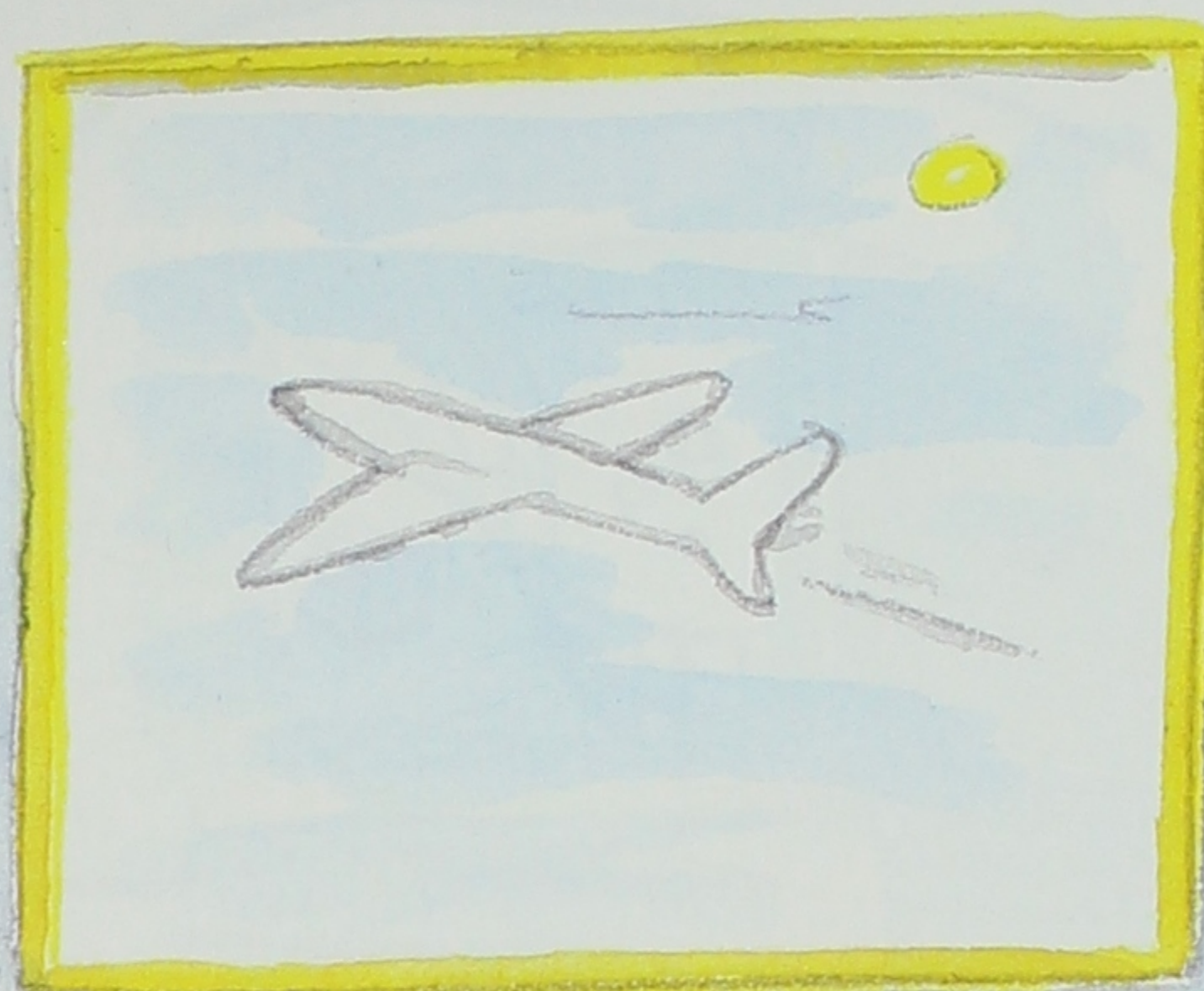
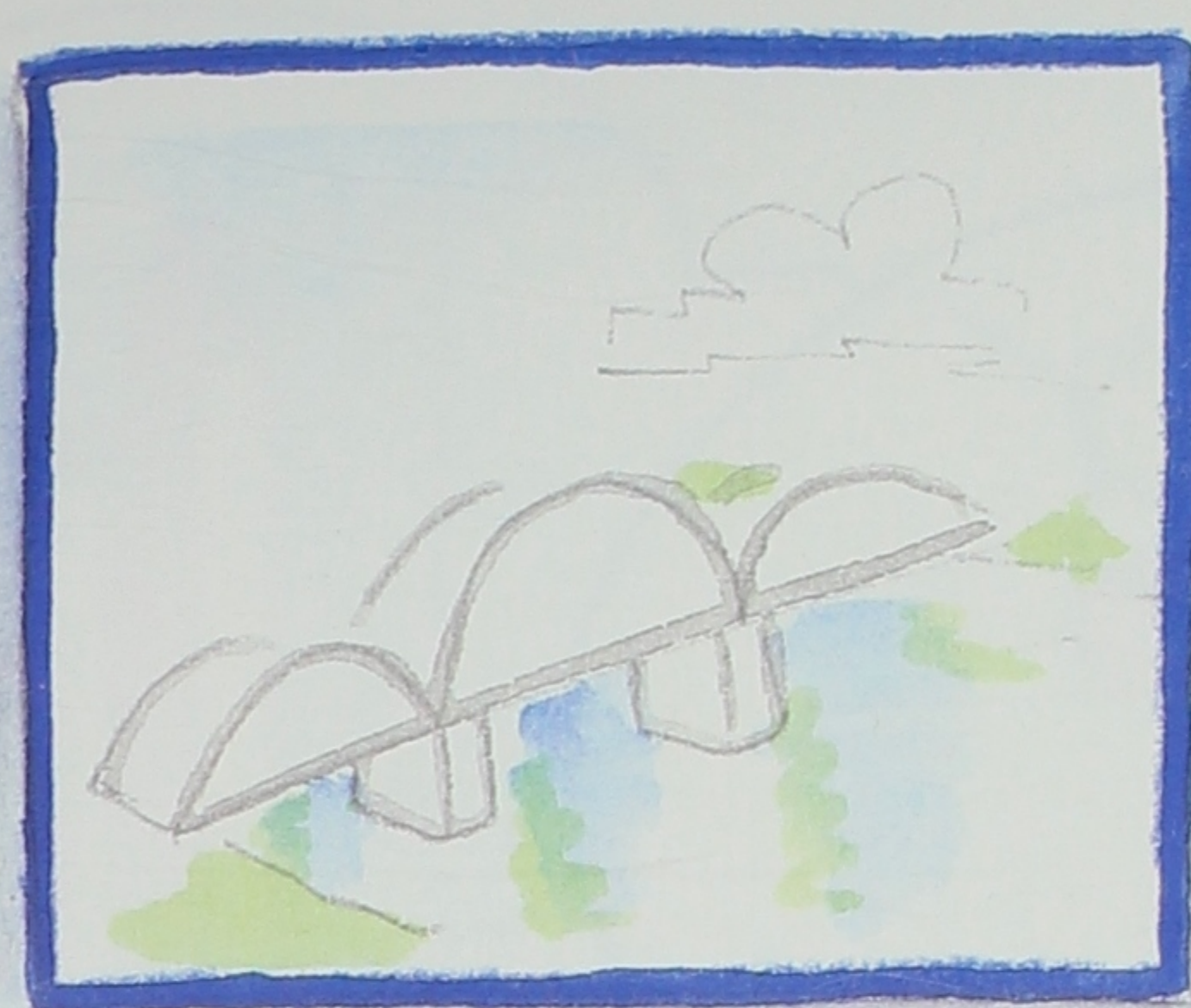
José Perez has a career as a civil engineer. So . . .





... not all engineers drive trains.





This is a team of engineers.  
They work and plan together.  
Everyday they think of ways  
to design things for our world.





Do you like to think of ways  
to make things work and go?  
Do you like to design new things  
using what you know?





Then you might have a career as an engineer.  
Because . . .



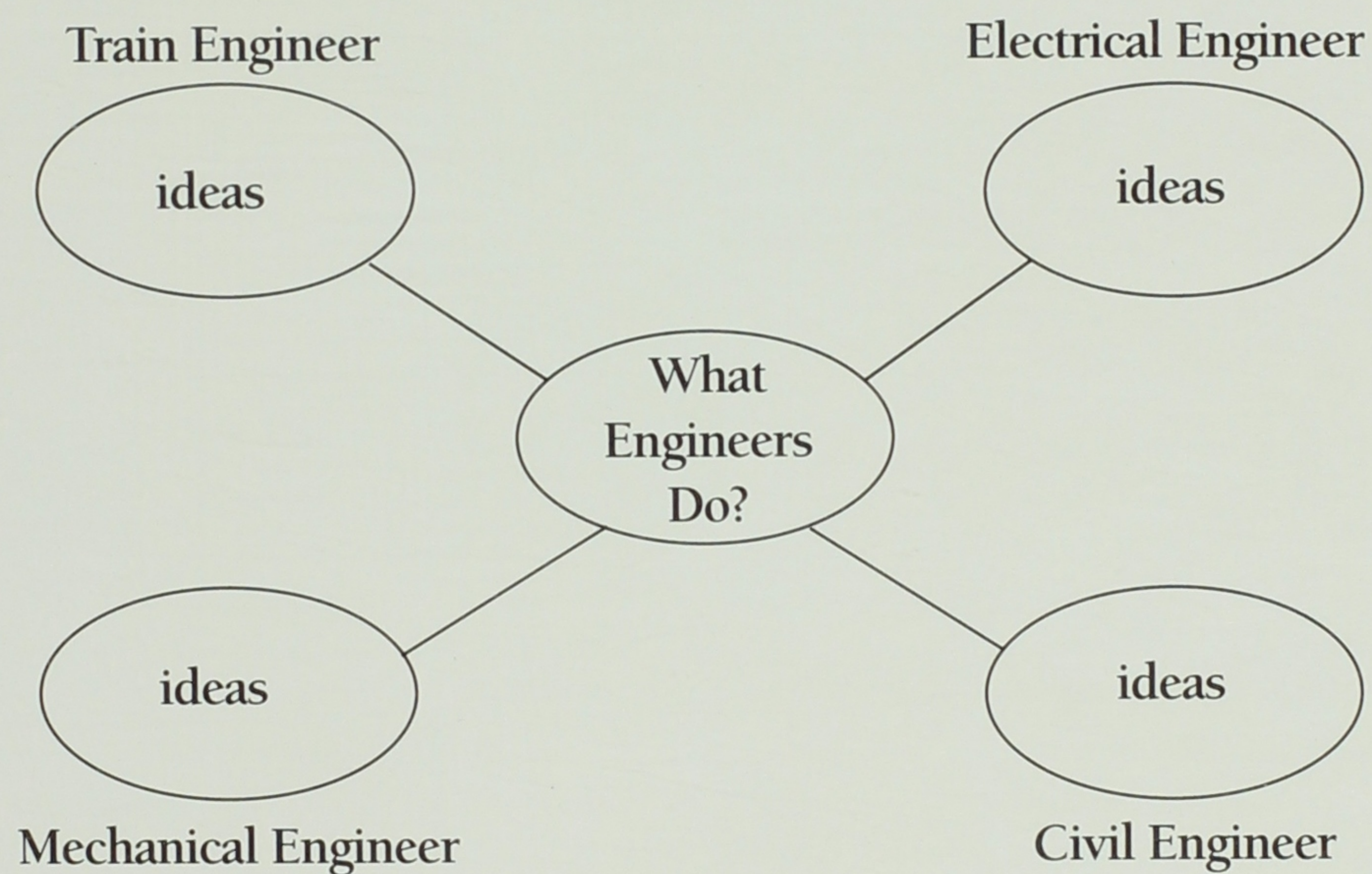


... not all engineers drive trains!



# Checking for Understanding

1. Davy Dewitt was the first engineer in this story. What kind of engineer was he?
2. Sheena O'Neil was an electrical engineer. What does she do at her job? What types of things does she work on?
3. Reggie Reid was a mechanical engineer. What does he do at his job? What types of things does he work on?
4. José Perez was a civil engineer. What does he do at his job? What types of things does he work on?
5. Do all engineers drive trains?
6. What are all the different types of things that engineers do? Allow the students to brainstorm and give you answers to this question. On a large piece of paper or a chalkboard, write down the answers the students give you using the diagram format below. Try to group the ideas the students tell you into the four types of engineers discussed.





# Glossary

**CAREER**—A career is the work that a person does for a living. For example, “Susan has a career as a teacher.”

**DESIGN**—When you design something you make a plan or drawing that shows how something will look or will be made. A design can show a building, a car or other machine, a piece of clothing or furniture, or a page of a book.

**ENGINEER**—An engineer is a person who plans and builds such things as engines and other machines, cars and airplanes, roads and bridges, or buildings. Also, a person whose work is driving a railroad engine.

**GRAIN**—Grain is the seed of wheat, corn, rice and other such food plants.

**MACHINE**—A machine is something that helps people do work. It has parts that move to make it work. An airplane is a machine that can fly.

**METAL**—Metal is something that is hard and strong. Iron, steel and aluminum are metals that are used to make machines.